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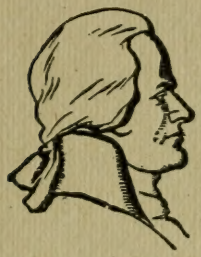
[Modern Business Talks]

COST RECORDS AS PROFIT MAKERS

The business that does not watch its costs is likely to have no profits to watch.

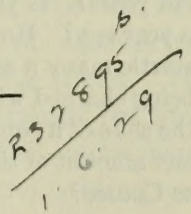


MODERN BUSINESS
TALK No. 19

ALEXANDER HAMILTON INSTITUTE
NEW YORK

Cost Records as Profit Makers

Number Nineteen of a Series of Modern
Business Talks Prepared by the
Alexander Hamilton Institute



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NEW YORK

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READING ASSIGNMENT

The current Reading Assignment consists of three parts: (1) this Talk, (2) Chapters I to IX of Volume 10, "Cost Finding," and (3) Lecture No. 10.

Suppose you apply cost finding principles to your own process of self development. You ought to know, for example, whether you are making the most economic use of your time. Is an undue amount of time spent on recreation or pleasure? Are half-hours and hours idled away every day? Is the development of your earning power keeping pace with your growth in years? Is your time worth more now than it was a year ago? Honest answers to these questions might startle many a self-complacent man who would resent being charged with indolence.

For the sake of a concrete example: Are you giving the proper amount of time and thought to the Modern Business Course?

Cost Records as Profit Makers

> The manufacturer who obtains contracts by underbidding his competitors with a price on which he will lose money, not only ruins his own business but destroys that of his competitors. This form of competition is the most dangerous, and most greatly to be feared, since it rests, in most cases, on ignorance.—Pages 5 and 6, Chapter I, Volume 10 of the MODERN BUSINESS Text.

"We have little use for cost accounts in our business."

The speaker was William N. Townsend, superintendent of the Bolton Press, one of the largest printing establishments in the city. He was discussing with some friends the value of cost accounts—a favorite theme for argument with them. Townsend was wont to exaggerate his contempt for figures and chaffingly referred to one of the party who was a cost accountant as an "animated adding machine." Secretely, this man desired an opportunity to get into Townsend's plant in order that he might show him how a system of cost accounts, properly analyzed, could reduce costs. But whenever the accountant suggested any point at which cost accounts might be valuable, Townsend overwhelmed him with a

mass of detail, and he made very little progress. The printing superintendent seemed to have every detail of that plant at his finger tips.

"I can understand," he argued, "how the man who runs a job printing business needs a cost system. He does a great many different jobs, on each of which he must make a price and know how his cost compares with his price. I can see that without one he is 'going it blind,' and that all he can do is to make a guess at the result. But the trouble with the job printer is that if he has to have a cost system, it eats up all his profits in clerk hire; and if he trusts to hit-or-miss guesses he usually makes no profits.

"Our business is different. We print and issue our four magazines regularly each month. Our work is exactly the same week in and week out. There is lots of it, for the circulation of our magazines is large. Our machines run on the same edition for two weeks or more, and all we require in order to find our labor costs is that the men hand in their daily time tickets with the number of the edition on which they have been working. It takes just a few girls with adding machines to figure these up, and there you have it. In the same way, the cost of our ink and paper is figured from the store requisitions which only need the edition-number written on them. Even that isn't really necessary. We could figure the cost simply by multiplying the number of pages in an edition by the ream weight of the paper. Really, our little job printing department which prints our forms and advertising matter,

makes more bother in the matter of cost accounting than the rest of the big shop!"

He smiled, satisfied that he had clinched the argument. Yet, he probably did not understand that cost accounting is more than merely finding costs. He did not consider that, when properly interpreted, cost records will ferret out existing leaks, both big and small.

Aggressive Management

Nevertheless, judged by results, the business certainly appeared to be first class. The Bolton Press printed several periodicals, the combined circulation of which ran well into the millions each month. The editor knew how to appeal to the popular fancy, and the circulation manager was a genius in his particular line. The business had grown rapidly and was yielding large profits. The chief manufacturing problems, so far, had been to get enough equipment for turning out the magazines on time, with the result that little or no time had been left for systematizing and for the stopping of small leaks.

Townsend had that aggressive personality which gets things done. As the business grew larger, he successfully designed and installed many ingenious devices for handling more rapidly the increasing volume of business. The atmosphere of the shop was one of incessant haste and pressure—a condition favorable to waste of both time and material. Under the circumstances it was reasonably certain

that accurate cost accounts, carefully analyzed, would point the way to even larger profits.

An "S. O. S."

It is characteristic of aggressive and enthusiastic men that as long as things go well, they plunge merrily on, rarely stopping long enough to consider costs or economy. When the tide turns, however, and earnings decrease, they begin to realize the vital importance of reducing costs, and they will then grasp at almost anything that holds out a promise of lessened expenses.

In many cases it is then too late, tho in the case of the Bolton Press the prosperity of many years had built up a financial condition strong enough to weather almost any business storm.

Even a strongly intrenched business, however, is necessarily affected by poor business conditions. During the year that followed, a general depression caused a rapid decline in business, and business men everywhere reduced their advertising, thereby shutting off an important source of the Bolton Press' revenue.

But the management refused to be reconciled to reduced dividends. Instead it was decided if possible to reduce costs.

Townsend realized that quick action was necessary, so he called in his friend the cost accountant and asked that he devise a cost system which would show where the leaks were so that they could be stopped. He admitted with characteristic frankness

that none of the directors of the company knew where costs could be reduced, and added by way of comment that if the accountant didn't sink the ship with an overload of figures, he might eventually succeed in piloting it thru safely.

There are many like Townsend who go on for years in the belief that they need no cost systems because their problems are so simple. So far from this being the case, however, the Text shows that every shop, both big and little, should have a definite cost system adapted to the needs of the business. Frequently the savings effected in the small shop are proportionately greater than in the large one.

Expensive Waste

Of course, the bare knowledge of what it costs to get out an edition of one of the magazines would not be of much value to the company. Some analytical work based on the crude cost figures which were already compiled might possibly point the way to definite savings immediately. The paper bills were the largest single item of expense, and the accountant realized that if he could reduce that amount by even one per cent, the eyes of the management would quickly be opened to the value of cost analysis as a means of increasing profits.

Obviously this saving could be effected only by reducing the waste of paper, since naturally a material so important was purchased on the best terms possible. The cost figures compiled showed approx-

imately the amount of paper issued for each edition. The inaccuracies involved consisted of clerical errors against which there was no adequate check, and lack of proper accounting for part rolls left over from one edition to another.

Calculating the amount of paper contained in the magazines printed and sold, the accountant found that the paper delivered from the store room averaged about seven per cent more than was eventually sold as finished magazines. Except for a small percentage of the recovery-value obtained from the junkman, that seven per cent was pure waste. It was made up of small items: three to six different kinds of waste on each of 8,000 rolls of paper a month, but the aggregate was astounding. Here, then, was the accountant's chance. Out of an annual waste of nearly $200,000, it ought to be possible to save enough to justify the employment of a cost accountant.

Getting the Figures

The first thing to do was to get accurate figures that would show just *where* this waste occurred. After that it would be proper to find out *how* the waste occurred, how much of it was unavoidable, and how much of it was due to carelessness or ignorance of how to handle paper, and thus preventable.

Strange enough, altho Townsend devoted much time to the design and operation of special machines and to contending with the Union regarding discipline, wages and other regulations of labor condi-

tions, he had overlooked one of the biggest leaks in the business, the tremendous paper waste.

When his attention was called to the $200,000 annual waste of paper, Townsend said: "Yes, that's a lot of money, but it's only seven per cent and that is a very low waste. In some printing shops estimates are made on the basis of a fifteen per cent waste. Our low percentage of waste is due to the fact that our machines are designed especially for our work, and consequently operate with less waste than other machines which do miscellaneous work and use miscellaneous stock."

Evidently Townsend did not believe that there was any possibility of reducing this waste, but the accountant, who was not handicapped by the possession of any technical knowledge of printing machinery, resolved to go ahead and show him that it could be done.

The Where and How

The value of cost figures lies in their ability to reveal, when carefully analyzed, the existence of waste or the presence of inefficiency and to point out the proper remedy in each case.

Now that the amount of waste had been ascertained, the next thing was to find out where and how each item originated. In order to do so the accountant had to spend some time in the store room and press room, watching the actual use of the paper. The cost figures previously obtained did not distinguish between the different kinds of

waste except with regard to the transit damage for which claims were to be entered against the railroad.

Observation showed that there were six different kinds of waste—transit damage, imperfect paper (which was faulty in manufacture and should have been torn off at the paper mill) store room damage, including paper injured in handling in the store room. In the press room a certain amount of paper was wasted in starting each roll because it was dirty or uneven on the outside; there was also a certain amount left on the core of the roll at the end of the job and there was, moreover, a printed paper of a quality not suitable for printing, which therefore must be considered waste. The last item was important because the price at which printed waste could be sold was very small, consequently this was nearly a total loss.

Wasteful Pressmen

For a period of two weeks the accountant carefully weighed the different classes of waste. This investigation disclosed the fact that the major part of the waste was found in the last four classes, for which employes of the company were responsible. The amount of printed waste, which was almost total loss, was largely in excess of any other item.

It was noted that some presses had much larger bundles of waste than others and in the case of certain machines which did the same work on several consecutive days it was found that these differences persisted day after day. Accordingly,

it was plain that the difference was neither in the work nor in the machines, but in the men who operated the machines.

In this plant each press used on the average about $200 worth of paper each shift. About four per cent or $8 worth of paper was wasted each shift in the press room. Such an item was worth careful accounting, and it was decided to install clerks who would weigh and record all items of waste from each pressman. To do this a stores issue card was designed on which all the needed items of information regarding the rolls could be entered. These included the weight of paper, all items of waste and the magazine and edition number on which the roll was used. The cards were made out in triplicate for each roll. One copy was used in making up cost figures and waste records; the second was used in making up the financial records for settlement of accounts with the paper mills, and the third was retained in the store room as memorandum of rolls issued and as a check in case of loss of the other cards.

Surprising Effects

It took some time to get the "waste records" into such form that the record of each pressman could be promptly shown, but at the end of the first month this was accomplished. Then, for some reason, the records began to show a falling off in the waste percentage. This decrease was astonishing considering that as yet no actual steps had been taken to reduce it. It was found that the mere

knowledge that their wastes were being recorded had made the pressmen more careful to avoid waste. Thus, the saving effected simply by the introduction of records amounted to nearly one per cent of the total consumption of paper, or about $30,000 annually. This showing established definitely the value of accurate and detailed cost figures, and the management issued orders for a complete system of cost records along the lines that seemed most desirable.

Setting Standards

But tho the results obtained by merely recording the waste were remarkable, it was realized that if improvement was to be permanent, something more than mere recording must be done. Standards of waste must be established beyond which the men could not go without attracting attention. Consequently, reasonable allowances for each class of waste on each type of roll were established as standards. To make the system effective, it was provided that the clerks who issued the rolls should immediately report to the foreman in charge any item of waste in excess of the standard allowance.

As a result of holding the men to the established waste standards and discharging a few who continued inefficient, the waste of paper was finally reduced by about two per cent of all paper used. This amounted to an annual saving of about $60,000 and the only expense involved was the salaries of a few cost clerks.

Promptness Essential

Perhaps the most valuable feature of the cost system installed in the Bolton Press was the promptness with which the figures were made available. While promptness of assembling the figures is always an important factor in a cost system, it is especially important in the tracing of waste. Conditions change so rapidly and important circumstances are so easily forgotten that figures only a month or two old are likely to have lost most of their value.

In establishing standards of waste reduction in the Bolton Press it was found necessary to make them slightly elastic so as to allow for weather conditions. Paper wastes are higher in very warm weather owing to the softening of press rollers. In a monthly comparison this fact caused startling fluctuations, and it was very difficult to determine how much to allow for the effect of the heat. This difficulty was finally overcome by computing figures daily and by taking into consideration the weather conditions each day.

The clerks soon learned that if the cost system was to serve its purpose, it must provide for accurate and prompt determination of material costs. In our reading assignment, the author explains clearly and interestingly the methods employed in various industries for securing the figures that show cost of materials.

Keeping Presses Humming

As the work of cutting down the paper waste was

approaching completion, the accountant began to investigate the possibility of effecting economies in the press room. Townsend, however, was positive that there the height of efficiency had been reached. "In the press rooms," he said, "we pay high wages. These are based on the Union scale and ours is a closed shop. We get first-class men for these wages, and we hold them to a high standard of output. Our presses average 20,000 impressions a shift and that is doing as well as any shop that I know of."

The accountant figured that if the presses ran at full speed thruout the shift, they would make 27,000 impressions. Accordingly twenty-five per cent of their capacity was being wasted. Much of this waste was probably unavoidable, yet careful attention could undoubtedly reduce it. To this end a form was devised for keeping track of the time spent on each operation in the press room, with particular attention to the delays to the presses, which were carefully subdivided into fourteen different classes. Foremen were required to inspect the cause of every delay. Each kind of delay that recurred with sufficient frequency to cause serious loss of time was investigated by expert machinists and press builders.

Considerable improvement in the mechanical efficiency of the machine resulted from this attention and the prompt appearance of the foreman at the machine in case of delay made the men more careful. In this way the delays to presses were cut in half and the output of the machines correspondingly increased from 20,000 to 23,500 impressions per shift.

Regulating the Bindery

In the bindery the labor cost cards showed an excessive amount of idle time on the part of many of the employes. The reason given for most of this idleness was "waiting for sheets." The company, it was learned, laid great emphasis on putting its magazines on sale thruout the United States at the same time. On account of difficulties in the press-room one or more signatures or sections of the magazines would frequently fall behind the others. This of course stopped work on the entire magazine in the bindery. To make up for these delays in the pressroom and to make shipments at the proper time, the bindery required much more labor than would have been necessary had material been delivered regularly.

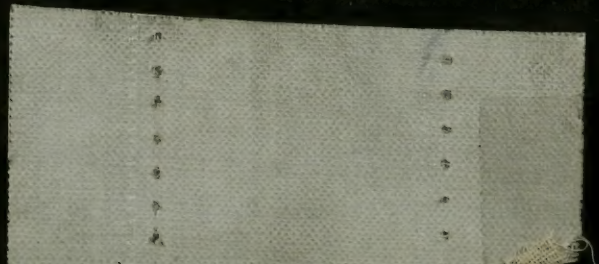
The cost figures revealed just how much money in the form of bindery labor these press room irregularities were costing the company. This focused the attention of the management on the problem, and the plan was adopted of running overtime in the press room when necessary and making special efforts to eliminate delays on the needed signatures. As a result of this plan not only was the operation of the bindery made much more regular, but it became possible to reduce the labor force approximately ten per cent.

Eliminating Graft

A discovery made in the bindery emphasized the necessity of having exact cost figures. The work of

inserting and stitching some of the magazines was done at piece rates. These rates, Townsend said, were absolutely fair, hence there was no need to figure any further in that direction. In checking up, however, the accountant found that the totals for these operations as reported by the operators—and they were paid according to their reports—amounted to considerably more than the number of magazines bound. Indeed, the excess was sometimes as much as five per cent. This piece of graft was eliminated by the simple expedient of requiring the operators to turn in vouchers marked with the correct count of magazines on the truck for each load which they handled.

The case of the Bolton Press illustrates the power of even the simplest cost accounts—those that deal with material and labor—to eliminate waste and to establish high standards of efficiency. It lies within the grasp of almost any man in business to install labor and material records and effect substantial savings for his firm. Harrington Emerson sums up the requirements of cost and efficiency records as "adequate, immediate and reliable." Without records that fulfil these three requirements, no plant can reach a high degree of efficiency.



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